

THE DER WEEKLY

www.eren.doe.gov/der

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October 12, 2001

Industry News

MA Buys Internet-Based Monitoring System

The Massachusetts Department of Telecommunications and Energy hired LiveData Inc., a Cambridge, Massachusetts, software company, in September to set up an Internet-based system to monitor state electric service. The system, Regulatory Compliance Management, is expected to go online in a few weeks, and will track power failures and reliability problems through electronic power outage reports from utility companies. According to the Boston Globe, Massachusetts utilities will face losing up to 0.9 percent of their revenues if they do not maintain specified levels of reliability, under a program that begins in November.

Energy Central, October 8; www.livedata.com

Quantum's Hydrogen Storage Tank Tested

Quantum Technologies WorldWide, Inc., and ATK Thiokol Propulsion Company have completed the first fast-fill cycling test for Quantum's 5,000 psi TriShield hydrogen storage tank. The tank was tested against NGV2-2000 requirements and the European Integrated Hydrogen Project storage standard, and was witnessed and validated by the Technical Surveillance Association. According to Quantum CEO and president, Syed Hussain, the tank showed no stress corrosion, cracking, or hydrogen embrittlement after undergoing the test.

Fuel Cells Today, October 10;

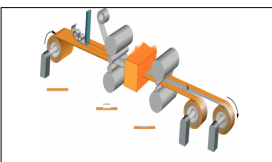
www.qtw.com



Quantum's TriShield all-composite compressed storage cylinder

TMI Develops Clad Metal for Fuel Cells

Technical Materials Inc., (TMI) announced that it has developed a clad metal system for fuel cells. According to TMI, the clad metal will offer improvements in adhesion and ductility, optimize fuel cell performance, reduce the weight of fuel cells, and lower manufacturing



Cladding Diagram

costs. The clad metal can be manufactured in thickness of millimeters or microns, and used for collector plates, perm selective membranes, and bipolar plates.

Fuel Cells Today, October 11; www.technicalmaterials.com

Cummins Begins First Phase of Fuel Cell Project

Cummins Power Generation announced on October 4 that it received a contract for \$20 million from the U.S. Department of Energy (DOE) to begin the first phase of a project to develop 10-kW fuel cell. Cummins and McDermott Technology Inc., will work together on the solid oxide fuel cell. Cummins will be the fuel cell integrator and will develop the DC to AC power inverter, electronic controls, air/fuel controls, thermal management, and physical housing for the units, and McDermott will develop the fuel reformer and heat exchanger and provide its fuel cell stacks for the system. DOE will contribute a total of \$74.9 million to the project, and the Cummins/McDermott team will invest an additional \$75.5 million in the 10-year, three-phase project.

Eye for Fuel Cells Weekly, October 11;

McDermott Technology Inc., News Release, October 4

(Continued on page 2)

What's on the Web



The Energy Information Administration released a report last week, Analysis of Strategies for Reducing Multiple Emissions from Electric Power Plants with Advanced Technology Scenarios. The study analyzes the costs and impacts of a set of emissions control limits for electricity generators under four different technology cases. The report is located on EIA's Web site, www.eia.doe.gov, on the "What's New at EIA" page.



*On Saturday, October 13, solar home tours will take place in 43 states and the District of Columbia.**

Page 1

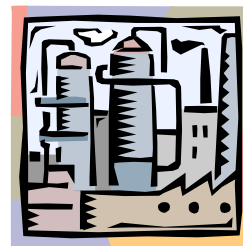
The DER Weekly, October 12, 2001

Power Crunch: The DER Weekly Feature

Study Says More Businesses Ready for Distributed Energy Resources

According to a study conducted by Primen, an energy-market intelligence company affiliated with the Electric Power Research Institute, a growing number of businesses identify themselves as “strong candidates” for baseload distributed energy applications in the next two years. Findings from the study, *Distributed Energy at the Tipping Point: Customers’ Growing Receptivity to Grid-Alternative DE*, are based on telephone surveys and in-depth interviews with 627 industrial companies and commercial businesses that use 10 kW to 5 MW of electricity. About one-half of the “strong candidates” for DER said they are already evaluating their options, including natural gas reciprocating engines, microturbines, and fuel cells. The study also indicates that companies experiencing deregulation and problems with power outages believe that increased reliability brought with distributed energy is more valuable than cost savings. Many of these businesses already have standby generators, and 94 percent of them said they would “dispatch their generators to cut peak loads given the proper incentives.” In addition, the study found that there are significant gaps in knowledge about specific technologies and that more education is needed to trigger interest in DER.

Energy Central, October 10, www.primen.com



DOE News

Energy Storage Program Review

The Annual DOE Energy Storage Program Review will take place November 14-15 at the Doubletree Hotel in Crystal City in Arlington, Virginia. The review will feature presentations by DOE contractors reporting on research progress of their storage projects. Technologies presented will include a portfolio of advanced batteries, flywheels and super-capacitors for power quality and load leveling applications. Development of integrated systems, advances in power electronics, and analytical studies will be evaluated by an international panel of reviewers. In the context of the review, the Electricity Storage Association will conduct a panel discussion on Energy Storage and National Security. This will take place November 14 in the afternoon. The two day review is free and open to the public. If you plan to attend, please preregister with jblais@sentech.org. Hotel Reservations at a reduced rate can be made at (703) 416-4100. For further information, please contact Dr. Imre Gyuk at (202) 586-1482.

FEMP's CHP Effort

Oak Ridge National Laboratory's (ORNL) Federal Energy Management Program (FEMP) team has launched ADD CHP, Accelerated Development and Deployment of Combined Cooling Heating and Power at Federal Sites. Under this effort,

ORNL is providing technical assistance to help federal sites assess and verify their CHP potential. FEMP also assists sites that need financing partner with an energy service company or utility to negotiate a fair and reasonable project implementation deal. Priority for technical or financial assistance is given to sites with strong interest in expediting CHP project development. Expected outcomes include technical assistance, project facilitation, and coordination with the Office of Power Technologies and other partners to accelerate implementation and ensure best-value projects; development of 12 large CHP systems (> 1 MW) at federal sites; and a national federal CHP market potential analysis. For more information, contact Patrick Hughes, 865-574-9337, hughespj1@ornl.gov.

By the Numbers

- 8 millions of barrels of oil consumed per day by America's cars and light trucks
- 77 millions of barrels of oil produced each day worldwide
- 36 percent fuel efficiency for cars, that could be achieved without harming safety and performance (currently at 17 percent under CAFÉ standards)
- 47 percent efficiency for light trucks, that could be achieved without harming safety and performance (currently at 27 percent under CAFÉ standards)



Source: e-FICIENCY News, October 2001

Calendar of Events

As always, please check with event sponsors to confirm date and location of all events. If your organization's event is postponed or cancelled, contact Brian Marchionini at bmarchionini@energeticsinc.com.

OCTOBER 2001			
14-17	National Center for Photovoltaics Program Review	Lakewood, CO	barbara_ferris@nrel.gov, 303-275-3781
14-17	NASEO Annual Meeting	Portland, ME	www.naseo.org — Rescheduled from September 16-19
16-18	IEEE Distributed Resources and Electric Power Systems Interconnection Working Group (P1547) Meeting	Las Vegas, NV	http://grouper.ieee.org/groups/scc21/1547/
16-17	CHP Roadmap Meeting	Baltimore, MD	John Jimison, johnj@bcjlaw.com
16-17	Two-day Seminar on Materials for Corrosive Applications	Wilmington, DE	Rick Sutherlin, (541) 967-6924
22-23	Fuel Cells for Portable Devices	San Francisco, CA	www.f-cellsnetwork.com/NA-1660-01
24-26	World Energy Engineering Congress and Combined Heat & Power Expo	Atlanta, GA	www.agcc.org (CHP Expo www.aeecenter.org)
24-27	Excellence in Building 2001	Orlando, FL	www.eeba.org/conference
28-Nov. 2	2001 IEEE/PES Transmission and Distribution Conference and Expo	Atlanta, GA	www.ieseet-d.org
29-30	Reliability-Focused Energy Efficiency Conference: Lessons Learned in 2001	Berkeley, CA	www.aceee.org
NOVEMBER 2001			
1-2	3rd Annual International Symposium on Distributed Energy Resources	San Diego, CA	www.cader.org ; Robert Dixon, Deputy Assistant Secretary, Office of Power Technologies invited to speak
1	U.S. Advanced Ceramics Association Meeting	College Park, MD	Lara Neer; 202-293-6253
1-2	3rd EPRI Powering the Digital Economy Workshop	San Francisco, CA	pkeebler@epri-peac.com ; 865-218-8015
1-4	World Congress for Hydrogen Economy	Denver, CO	www.hydrogennow.org
5-6	Clean Air Technologies 2001	Anaheim, CA	www.aqmdconferences.org
6	NAESCO DG Conference	Miami, FL	www.naesco.org/conference.htm
6-7	Empire Energy & Environment Expo	Albany, NY	info@eba-nys.org
6-7	14th NREL Industry Growth Forum	San Jose, CA	Sara Huntly, 303-275-4317
7	Ohio Fuel Cell Technology Symposium	Cleveland, OH	www.cesnet.org
7-8	Demand Response Programs: Results, Status and Future	Washington, DC	Peak Load Management Alliance Fall Conference www.aesp.org/forms/form.cfm?id=14
7-9	NAESCO 18th Annual Conference	Miami, FL	www.naesco.org/conference.htm
11-14	113th NARUC Annual Convention	Philadelphia, PA	www.naruc.org
12-14	Fuel Cells for Stationary, Automotive and Portable Apps.	Fort Lauderdale, FL	Florida Educational Seminars, (561) 367-0193
14-15	Energy Storage Program Review	Arlington, VA	jblais@sentech.org ; Dr. Imre Gyuk (202) 586-1482
27	Illinois Wind Workshop	Lisle, IL	www.eren.doe.gov/cro
27-28	Business for Fuel Cells for Stationary Applications	Brussels, Belgium	www.eyeforfuelcells.com
28-29	Business Energy Solutions Expo	Orlando, FL	www.aeecenter.org ; www.tecoenergy.com
28-30	DER Conference and Peer Review	Washington, DC	cs@energeticsinc.com

*The home tours are co-sponsored by the U.S. Department of energy and will include more than 800 homes. Last year, the same event drew more than 15,000 people.**

Calendar of Events

DECEMBER 2001

3-4	4th Business Case for Opportunity and Investment in Fuel Cells	Miami, FL	www.cbinet.com
3-5	Next Generation Turbine and Condition Monitoring Conference and Workshop	Galvestone, TX	www.netl.doe.gov
5-7	4th Annual Interactive Energy Conf.	Houston, TX	www.interactiveenergy.com/2001
11-13	Power-Gen International	Las Vegas, NV	www.pennwellevents.com
11-12	Workshop on Interconnecting Distributed Generation	Honolulu, HI	mtome@dbedt.hawaii.gov or call: 808-587-3809; www.state.hi.us/dbedt/ert

JANUARY 2002

14-15	Material Technologies for Fuel Cells and Power Electronics	Cocoa Beach, FL	www.ceramics.org/meetings/ECD2002/expo.asp
28-Feb.1	Distributed Power Program Annual Review Meeting	Arlington, VA	kimberly_taylor@nrel.gov
29-Feb.1	Reducing Your Energy Costs Conference and Exhibit	New Orleans, LA	Stuart Steller, 781-939-2411, s.steller@cbinet.com

FEBRUARY 2002

27-Mar 1	DistribuTECH	Miami Beach, FL	www.pennwellevents.com
2	Distributed Resources, Renewables and the Environment	Portland, OR	newsdata@newsdata.com; 503-230-5884 (Bonneville Power Administration)
6-7	Fuel Cell Dynamics: Reality, Not Hype	New York, NY	www.alliedworld.com
11-13	NASEO 2002 Energy Outlook Conference	Washington, DC	www.naseo.org/events/default.htm
20-22	New and Emerging Technologies Conference	Tucson, AZ	www.nreca.org/edu_events/conferences/newtech/html/conference.html

MARCH 2002

17-21	EPRI's 7th Distributed Resources Conference and Expo	Dallas, TX	lgoldie@epri.com
19-21	Electric Power 2002	St. Louis, MO	www.electricpowerexpo.com
20-23	Building Energy Conference	Medford, MA	www.nesea.org ; 877-44SOLAR, ext. 20